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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,263	08/02/2001	Frederic Garcon	PM00053	8691

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EXAMINER

KALLIS, RUSSELL

ART UNIT	PAPER NUMBER
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1638

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DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,263

Applicant(s)

GARCON ET AL.

Examiner

Russell Kallis

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 2/19/03 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s) 11
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1638

DETAILED ACTION

Claims 1-18 are pending, and are examined in the instant action.

This action is made FINAL necessitated by Applicant's amendment.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The objection to Claims 6-11 and 13 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and cannot depend from any other multiple dependent claim is withdrawn in view of Applicant's amendments.

The objection to incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication as being improper is withdrawn in view of Applicant's arguments.

The rejection of Claims 2 and 12 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter is withdrawn in view of Applicant's amendments.

The rejection of Claims 2-11 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in view of Applicant's amendments.

Claim Rejections - 35 USC § 112

Claims 1-13 remain rejected and newly added Claims 14-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is withdrawn in view of Applicant's arguments.

Applicant asserts that they are not claiming genes for tolerance per se but rather, claims 1-18 are drawn to method of transforming plant cells and methods for preparing transgenic plants that employ "a gene for tolerance to HPPD inhibitors" (response pages 8-9). Applicant further asserts genes for tolerance to HPPD inhibitors are disclosed in the specification on pages 7 and 8 by reference to U.S. Patent 6,087,563, WO 97/49816, WO 96/38567 and WO 99/24585 (response page 9). U.S. Patent 6,087,563 does not teach genes for tolerance to HPPD inhibitors per se but rather teaches overexpression of a naturally occurring HPPD coding sequence isolated from *Pseudomonas* in order to obtain resistance to an herbicide that blocks HPPD from synthesizing necessary components of the electron transport system i.e. carotenoids and plastoquinones (column 4); WO 97/49816 also teaches only naturally occurring HPPD genes and inhibition of plant HPPDs by herbicides sulcotrione and isoxaflutole (page 29 Example 4). Further, the WO 96/38567 does not teach an effective HPPD polynucleotide resistant to herbicides but only teaches resistance to herbicide by overexpressing a HPPD enzyme (in U.S. Patent 6,268,549; column 2, lines 59-64). Furthermore, the WO 99/24585 does not declare the United States as a country of filing and is not in English. Moreover, Applicant does not teach

Art Unit: 1638

which residues of "a gene" when changed would result in "a gene for tolerance to HPPD inhibitors". Applicant's assertion to have described a broad category of "genes for tolerance to HPPD inhibitors" is not supported by the prior art. So, it is perfectly clear that "genes for tolerance to HPPD inhibitors" of the instant claims are not described in the references cited in the specification on pages 7 and 8 as set forth in the response.

Claims 1-13 remain and newly added Claims 14-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is maintained for the reasons of record set forth in the Official action mailed 11/07/02. Applicant's arguments filed 2/19/2003 have been considered but are not deemed persuasive.

Applicant asserts that the techniques of the Chaleff '971 patent do not relate to the technologies employed in the claimed methods or the type of herbicide used in the claims (response page 10). The teachings of Chaleff '971 patent are broadly applicable to any method of tissue culture wherein selection for resistance to herbicides is performed on untransformed cells in the presence of an amount of herbicide that would not kill the plant tissue over the time of the exposure. It is well known in the art that plant cells maintained in tissue culture acquire mutations such that both sensitive and resistant phenotype exist in the culture.

Applicant asserts that the mutation breeding is not a technique of the methods of the claimed invention (page 11). Applicant's response is not persuasive. Applicant is directed to read page 421 of Chaleff *et al.* (1986), first sentence under the topic of mutational breeding, where the reference states rather clearly that "genetic modification either by mutant selection or

Art Unit: 1638

transformation, are not to be enjoyed with out certain concessions' and goes on to state that passage through tissue culture is a requirement of both techniques.

Applicant asserts that the methods of the pending claims are exemplified in the methods taught in Example 2 and the specification (response page 11). Applicant has not shown the presence of the transgene in any of the putatively transformed tissues of Example 2 but has only taught how to select for resistant cells. Further, Applicant has not provided any guidance for identifying, isolating or evaluating the broadly claimed category of 'genes for tolerance to HPPD inhibitors', incorporated by reference to polynucleotides (genes) from U.S. Patents and WO publications that have not been enhanced for any increased tolerance to HPPD inhibitors, and thus has not enabled methods of using a multitude of non-exemplified genes.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1638

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (703) 305-5417. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the Group is (703) 308-4242 or (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding, or if the examiner cannot be reached as indicated above, should be directed to the receptionist, whose telephone number is (703) 308-0196.

Russell Kallis Ph.D.
May 27, 2003

DAVID T. FOX
PRIMARY EXAMINER
GROUP 488-1638

